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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/663,832	09/15/2000	Malcolm G. Smith SR.	ULT-010	4031
22888	7590	07/12/2004	EXAMINER HESS, DANIEL A	
BEVER HOFFMAN & HARMS, LLP TRI-VALLEY OFFICE 1432 CONCANNON BLVD., BLDG. G LIVERMORE, CA 94550			ART UNIT 2876	PAPER NUMBER

DATE MAILED: 07/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/663,832

Applicant(s)

SMITH, MALCOLM G.

Examiner

Daniel A Hess

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 37-46 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 37,39,40,43 and 45 is/are rejected.
7) ☒ Claim(s) 38,41,42,44 and 46 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Remarks

This action is in response to an amendment received 1/26/2004, which has been placed in the file of record.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 37, 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamo et al. (US 5,942,744) in view of Wood et al. (5,041,922).

Kamo et al. teaches (see for example figure 114 (cover figure)) a card-type surface that has a circular data storage region (column 1, lines 10-15; column 8, lines 35-40 and 45-46; figure

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79; 82a). The data storage region is magnetic; it is circular. In terms of the structure of layers, figure 44, is particularly instructive: "In FIG. 44, protective layer 502, print layer 503, base (milk-white colored PET) 504, magnetic recording layer 505, and protective layer 506 of non-magnetic film are layered in order" (column 44, lines 45-50). A protective layer is clearly discussed. The protective layer must obviously be permeable. That the layer has low friction can be expected to the extent that the exposed surfaced of cards are generally made to be polished and smooth.

Kamo fails to teach an intermediate layer of magnetically permeable, magnetically saturable material.

Wood et al. teaches a magnetic medium with a saturable, high magnetic permeability layer that affects the transfer of magnetic signal flux between a magnetic transducer and a high coercivity layer (column 6, lines 22-29).

In view of Wood's teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known saturable, high magnetic permeability layer in the teachings of Kamo, et al. because "quality of signals transferred relative to the magnetic storage medium can thus be improved without increasing the likelihood of damage or wear to the transducer and/or medium."

Re claim 39 and 40: The limitations of these claims are encompassed in the discussion above.

Claims 43 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamo et al. as modified by Wood et al. as applied to claim 37 above, and further in view of Rose (US Re38,290).

The limitations under the subclause, “providing a data card including...” have generally been discussed above, re claim 37. That the protective layer is “abradable” is generally understood to be part of the concept of a protective layer. The protective layer sustains any rough treatment so that data-bearing layers don’t have to. Read heads are discussed which convert the magnetic data to an electrical signal (Kamo, column 21, lines 45-50). This is, by definition, transducing. The magnetic layer generally will be very thin.

Kamo et al. as modified by Wood et al. fails to teach or fairly suggest that the card rotates. Instead, in Kamo et al., the reader rotates.

Rose et al. teaches (column 2, lines 24-30) that the card rotates.

In view of Rose et al.’s teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the old and well-known rotation by the card for rotation by the reader because the card is smaller and therefore can be brought to a high speed faster and with less energy consumption.

Allowable Subject Matter

Claims 38, 41, 42, 44 and 46 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

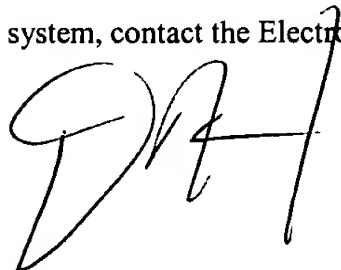
In particular, the examiner did not find a non-magnetic layer between a magnetic material layer a magnetically permeable, magnetically saturable material responsive through the non-magnetic layer to produce a magnetic image field and determined that one would not have been motivated to include this layer.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel A Hess whose telephone number is (571) 272-2392. The examiner can normally be reached on 8:00 AM - 5:00 PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DH

Daniel A Hess
Examiner
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